

PRACTICE EXERCISES

Algebra 2
Unit #3
WS #1

Simplify.

1. $\sqrt{-5}$
2. $\sqrt{-9}$
3. $\sqrt{-6}$
4. $\sqrt{-16}$
5. $\sqrt{-8}$
6. $\sqrt{-32}$
7. i^{11}
8. i^{13}
9. i^{12}
10. i^{20}
11. i^{24}
12. i^{27}
13. $3i + 7i$
14. $5i + 6i$
15. $7i - 11i$
16. $\sqrt{-9} - 5i$
17. $\sqrt{-9} + \sqrt{-25}$
18. $\sqrt{-4} - \sqrt{-16}$
19. $\sqrt{-5} + 3\sqrt{-5}$
20. $3i\sqrt{-4}$
21. $\sqrt{-36} \cdot \sqrt{-25}$
22. $\sqrt{-16} \cdot \sqrt{-49}$
23. $\sqrt{-3} \cdot \sqrt{-5}$
24. $\sqrt{-7} \cdot \sqrt{-3}$
25. $6i \div 2i$
26. $12i \div 3i$
27. $7i \div 2i$
28. $15i \div 18i$
29. $\sqrt{-5} \div \sqrt{-2}$
30. $\sqrt{-7} \div \sqrt{-5}$
31. $2\sqrt{-5} \div \sqrt{-10}$
32. $\sqrt{-98}$
33. i^{55}
34. i^{82}
35. i^{132}
36. $(-i)^{16}$
37. $7\sqrt{-16} - 3\sqrt{-9}$
38. $5\sqrt{-8} + 2\sqrt{-50}$
39. $3\sqrt{-27} - 4\sqrt{-12}$
40. $-2\sqrt{-125} + 3\sqrt{-20}$
41. $-\sqrt{-28} - 2\sqrt{-63}$
42. $-\sqrt{-32} - \sqrt{-72}$
43. $-\sqrt{-300} + \sqrt{-243}$
44. $-\sqrt{-363} - \sqrt{-243}$
45. $2i\sqrt{7} - 3i\sqrt{7}$
46. $i\sqrt{5} + i\sqrt{5}$
47. $i\sqrt{-12} \cdot 2\sqrt{-10}$
48. $2i\sqrt{-3} \cdot \sqrt{-12}$
49. $4\sqrt{-8} \div 6\sqrt{-12}$
50. $8i \div \sqrt{-72}$
51. $6i \div \sqrt{-200}$
52. $6\sqrt{-50} \div 3\sqrt{-6}$
53. $4\sqrt{-45} \div 2\sqrt{-10}$
54. $\sqrt{-18} \div \sqrt{-9}$
55. i^{4n+1}
56. i^{4n+2}
57. i^{4n+3}
58. $(5i \cdot \sqrt{-3}) \div \sqrt{-6}$
59. $(\sqrt{-7} \cdot \sqrt{21}) \div 7\sqrt{-1}$
60. $(3i)^3 \div (2i)^4$
61. $i^{24} \div i^{18}$
62. $\sqrt{-x^2} + \sqrt{-y^2}$
63. $(\sqrt{-x^2})^5$